

REMARKS/ARGUMENTS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-5 are pending in the application, with Claim 4, the drawings, and the specification amended by the present amendment.

In the outstanding Office Action, the drawings were objected; Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lattard et al. (U.S. Patent No. 115,413, hereinafter Lattard) in view of "On the implementation and performance of single and double differential detection schemes" Simon, M.K.; Divsalar, D.; Communications, IEEE Transactions on, Volume: 40, Issue: 2, Feb. 1992, Pages 278-291 (hereinafter Simon).

The specification, drawings, and Claim 4 are amended as suggested by the Official Action. No new matter is added.

Regarding the objection to the equation at page 2, lines 6-8, Applicants traverse and claim that the equation is correct. Otherwise, the corrections to the specification suggested in the Official Action are submitted without the addition of new matter. The drawings and Claim 4 are amended as suggested in the Official Action without the addition of new matter.

Claim 1 is directed to a method for receiving a CDMA signal. The method includes 1) an operation of correlation with appropriate pseudo-random sequences, 2) an operation of synchronization for locating data in the correlation signal obtained, and 3) an operation of retrieving data. The synchronization operation includes double delayed multiplication of the sampled correlation signal by performing a first delayed multiplication including multiplying a sample of the correlation signal by the conjugate preceding sample (50, 52, 54), then a second delayed multiplication including multiplying a sample of the signal thus obtained by the conjugate preceding sample of said signal obtained (60, 62, 64).

Lattard discloses a detection means which includes a single delayed multiplication of a sampled correlation signal. As noted in the Official Action, Lattard does not disclose or suggest Applicants' claimed double delayed multiplication of a sampled correlation signal.

Simon discloses detection means which include the multiplication of a received signal with an identical signal delayed by a symbol period. In order to improve the signal to noise ratio, the multiplication is made twice.¹ However, like Lattard, Simon fails to disclose or suggest Applicants' claimed double delayed multiplication of the sampled correlation signal. That is, Simon does not disclose or suggest a first delayed multiplication that includes multiplying a sample of the correlation signal by the conjugate *preceding* sample (50, 52, 54), then a second delayed multiplication consisting in multiplying *a sample of the signal thus obtained by the conjugate preceding sample* of the signal obtained. In other words, in Applicants' claimed invention, the two multiplications are not applied to the same signals as is the case in Simon. In Applicants' claimed invention, the first multiplication involves detection and the second involves synchronization.² This allows for improved synchronization.³ The structure disclosed by Simon corresponds to Applicants Admitted Prior Art (APA) described in Applicants' originally filed specification.⁴

As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claim 1, Applicants submit the inventions defined by Claim 1, and all claims depending therefrom, are not rendered obvious by the asserted prior art for at least the reasons stated above.⁵

¹ Simon, Figure 1.

² Specification, page 8, line 22 – page 9, line 19.

³ Specification, page 7, lines 1-3.

⁴ Specification, page 6, lines 14-28.

⁵ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599
Michael Monaco
Registration No. 52,041

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 08/03)
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